

SEQUENCE LISTING

<110> BUTTCHER, Volker et al.

<120> Method for producing alpha-1, 6-branched alpha-1, 4-glucans from sucrose

<130> 0147-0253P

<140>

<141> 2003-11-10

<150> US 09/807,063

<151> 2001-04-09

<160> 34

<170> PatentIn Ver. 2.1

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ccgccacccg caaatggca agcagcttgc catgatggca gacatccgc atg aac cga 178

Met Asn Arg

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Asn Arg His Ile Arg Arg Gly Tyr His Pro Glu Ala Gly Glu Arg Gln
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atc atc gac agc ctg ttt gcc acc cac agc gat ccg ttt gcc tat 274
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Leu Gly Arg His Arg Val Asn Asp Glu Arg Glu Ala Val Arg Val Leu
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cgt ccc gac gcg cac cac atc gac atc gac cgc cac aca ggc gca 370
Arg Pro Asp Ala His His Ile Asp Ile Ile Asp Arg His Thr Gly Ala
55 60 65

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Val Ile Met Pro Ser Glu Lys Ile Asp Glu Arg Gly Leu Phe Ala Ala
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Val Leu Pro Glu His Ala Pro Asp Tyr Ala Leu Leu Val Thr Tyr His	
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Glu Gly Glu Ala Ala Val Arg Glu Glu Asp Asp Tyr Arg Phe Gly Ser	
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Ala Leu Gln His Thr Asp Ala Trp Leu Leu Gly Glu Gly Thr His Leu	
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Val Ile Gly Glu Phe Asn Gly Trp Asp Ser Arg Arg His Ala Met Arg	
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Pro His Thr Gly Asn Gly Leu Trp Asp Ile Phe Ile Pro Gly Val Gly	
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Tyr Trp Ile Glu Arg Phe Gly Phe Asp Gly Ile Arg Val Asp Ala Val			
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Ala Ser Met Ile Tyr Arg Asn Tyr Ser Arg Lys Asp Gly Glu Trp Ile			
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Pro Asn Arg Tyr Gly Ser Glu Asn Leu Glu Ala Ile Ala Phe Leu			
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540

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 Arg Thr Gln Tyr Gln Gly Ser Gly Ile Ala Asn Gly Ala Asp Ile Thr
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gcg gaa aac gtg cct tcg cac ggc aaa gcg cag tcg ctg agc ctg acc 2338
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acg gaa att cag acg gcc ttg cgc gcc gac aag cag ccg gcg gta aaa 2434
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Arg Val Leu Arg Pro Asp Ala His His Ile Asp Ile Ile Asp Arg His
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Thr Gly Ala Val Ile Met Pro Ser Glu Lys Ile Asp Glu Arg Gly Leu
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Phe Ala Ala Val Leu Pro Glu His Ala Pro Asp Tyr Ala Leu Leu Val
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 180 185 190

Gly Val Gly Leu Asn Ala Leu Tyr Lys Phe Ser Val Leu Asp Ala Asn
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Ile Tyr Glu Val His Leu Gly Ser Trp Arg Arg Asn Pro Glu Asn Asn
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Gly Asn Arg Ile Ile Val Ile Ser Asn Phe Thr Pro Val Val Arg Glu		
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His Tyr Arg Phe Gly Val Asn Ala Pro Gly Arg Tyr Thr Glu Ile Leu		
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Asp Ile Thr Ala Glu Asn Val Pro Ser His Gly Lys Ala Gln Ser Leu		
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Ser Leu Thr Leu Pro Pro Leu Ala Thr Val Tyr Leu Tyr Gln Lys Ala		
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Ser Glu Asp Trp Arg Gln Phe Ser Arg Arg Met Asp Thr His Phe Pro
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580 585 590	
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595 600 605	
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Lys Ser Glu Asp Trp Arg Gln Phe Ser Arg Arg Met Asp Thr His Phe	
35 40 45	
Pro Lys Leu Met Asn Glu Leu Asp Ser Val Tyr Gly Asn Asn Glu Ala	
50 55 60	
Leu Leu Pro Met Leu Glu Met Leu Leu Ala Gln Ala Trp Gln Ser Tyr	
65 70 75 80	
Ser Gln Arg Asn Ser Ser Leu Lys Asp Ile Asp Ile Ala Arg Glu Asn	

	85	90	95
Asn Pro Asp Trp Ile Leu Ser Asn Lys Gln Val Gly Gly Val Cys Tyr			
100	105	110	
Val Asp Leu Phe Ala Gly Asp Leu Lys Gly Leu Lys Asp Lys Ile Pro			
115	120	125	
Tyr Phe Gln Glu Leu Gly Leu Thr Tyr Leu His Leu Met Pro Leu Phe			
130	135	140	
Lys Cys Pro Glu Gly Lys Ser Asp Gly Gly Tyr Ala Val Ser Ser Tyr			
145	150	155	160
Arg Asp Val Asn Pro Ala Leu Gly Thr Ile Gly Asp Leu Arg Glu Val			
165	170	175	
Ile Ala Ala Leu His Glu Ala Gly Ile Ser Ala Val Val Asp Phe Ile			
180	185	190	
Phe Asn His Thr Ser Asn Glu His Glu Trp Ala Gln Arg Cys Ala Ala			
195	200	205	
Gly Asp Pro Leu Phe Asp Asn Phe Tyr Tyr Ile Phe Pro Asp Arg Arg			
210	215	220	
Met Pro Asp Gln Tyr Asp Arg Thr Leu Arg Glu Ile Phe Pro Asp Gln			
225	230	235	240
His Pro Gly Gly Phe Ser Gln Leu Glu Asp Gly Arg Trp Val Trp Thr			
245	250	255	
Thr Phe Asn Ser Phe Gln Trp Asp Leu Asn Tyr Ser Asn Pro Trp Val			
260	265	270	
Phe Arg Ala Met Ala Gly Glu Met Leu Phe Leu Ala Asn Leu Gly Val			
275	280	285	
Asp Ile Leu Arg Met Asp Ala Val Ala Phe Ile Trp Lys Gln Met Gly			
290	295	300	
Thr Ser Cys Glu Asn Leu Pro Gln Ala His Ala Leu Ile Arg Ala Phe			
305	310	315	320
Asn Ala Val Met Arg Ile Ala Ala Pro Ala Val Phe Phe Lys Ser Glu			
325	330	335	
Ala Ile Val His Pro Asp Gln Val Val Gln Tyr Ile Gly Gln Asp Glu			
340	345	350	
Cys Gln Ile Gly Tyr Asn Pro Leu Gln Met Ala Leu Leu Trp Asn Thr			
355	360	365	
Leu Ala Thr Arg Glu Val Asn Leu Leu His Gln Ala Leu Thr Tyr Arg			
370	375	380	
His Asn Leu Pro Glu His Thr Ala Trp Val Asn Tyr Val Arg Ser His			

385	390	395	400
Asp Asp Ile Gly Trp Thr Phe Ala Asp Glu Asp Ala Ala Tyr Leu Gly			
405	410	415	
Ile Ser Gly Tyr Asp His Arg Gln Phe Leu Asn Arg Phe Phe Val Asn			
420	425	430	
Arg Phe Asp Gly Ser Phe Ala Arg Gly Val Pro Phe Gln Tyr Asn Pro			
435	440	445	
Ser Thr Gly Asp Cys Arg Val Ser Gly Thr Ala Ala Ala Leu Val Gly			
450	455	460	
Leu Ala Gln Asp Asp Pro His Ala Val Asp Arg Ile Lys Leu Leu Tyr			
465	470	475	480
Ser Ile Ala Leu Ser Thr Gly Gly Leu Pro Leu Ile Tyr Leu Gly Asp			
485	490	495	
Glu Val Gly Thr Leu Asn Asp Asp Asp Trp Ser Gln Asp Ser Asn Lys			
500	505	510	
Ser Asp Asp Ser Arg Trp Ala His Arg Pro Arg Tyr Asn Glu Ala Leu			
515	520	525	
Tyr Ala Gln Arg Asn Asp Pro Ser Thr Ala Ala Gly Gln Ile Tyr Gln			
530	535	540	
Gly Leu Arg His Met Ile Ala Val Arg Gln Ser Asn Pro Arg Phe Asp			
545	550	555	560
Gly Gly Arg Leu Val Thr Phe Asn Thr Asn Asn Lys His Ile Ile Gly			
565	570	575	
Tyr Ile Arg Asn Asn Ala Leu Leu Ala Phe Gly Asn Phe Ser Glu Tyr			
580	585	590	
Pro Gln Thr Val Thr Ala His Thr Leu Gln Ala Met Pro Phe Lys Ala			
595	600	605	
His Asp Leu Ile Gly Gly Lys Thr Val Ser Leu Asn Gln Asp Leu Thr			
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Leu Gln Pro Tyr Gln Val Met Trp Leu Glu Ile Ala			
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